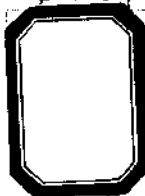


4272

Diag. Cht. No. 8102-2 & 8201-3



Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY - & A.

FEB 15 1923

State: Alaska

Acc. No.

11-5013

DESCRIPTIVE REPORT.

Hyd. Sheet No. (E) 4272

LOCALITY:

Ernest Sound

Eaton Pt. to Dear. I

1922

CHIEF OF PARTY:

A.M. Sobieralski

4272

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

E. Lester Jones, Director.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET "E"

Seward Passage - Santa Anna Inlet

Scale 1:20,000

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Season of 1922

Steamer WENONAH

A. M. Sobieralski, H. & G. E., Chief of Party.

DEPARTMENT OF COMMERCE
U.S.COAST AND GEODETIC SURVEY

E. Lester Jones, Director

D E S C R I P T I V E R E P O R T

to accompany

HYDROGRAPHIC SHEET "E"

Seward Passage - Santa Anna Inlet
Scale 1:20,000

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Season of 1922

Steamer WENONAH

A.M.Sobieralski, H. & G. E., Chief of Party.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET "E"
Seward Passage, Santa Anna Inlet
Scale 1:20,000

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This is a 1:20,000 sheet showing the development of Seward Passage and approaches, Santa Anna Inlet, Frosty Bay, and the bays and inter-island passages on west shore of Deer Island. It joins sheet "A" on the south, sheet "C" on the west and sheet "B" on west and north.

GENERAL DESCRIPTION:

Seward Passage separates Deer Island from the mainland. Approaches from the south are clear to $3/4$ mile east of Point Peters. Point Peters is the most southerly point of Deer Island.

A series of islets and reefs make from the mainland north for $2/3$ mile ending in a small island $3/4$ mile east of Point Peters. A reef makes north 100 meters, and 200 meters south of this island is a small round islet covered in summer with fire weed. 100 meters south of this islet a small boat passage may be had by holding east true until well through the kelp between islands. Water from 200 meters to south of this islet is foul.

The safe channel with 50 fathoms lies 400 meters off along the south shore of Deer Island until past the above mentioned island. Thence Seward Passage trends northerly and is clear, deep, and steep-to. The shores are wooded, regular and steep.

A rock baring at low water, lies 110 meters off Triangulation Station IRON, 1650 meters N.E. of Point Peters.

A large open bight makes S.E. into mainland, 1 mile S.E. of Point Peters. A reef makes 100 meters off the point on east side of this bight and the water shoals to a sand beach. It is used by fishing craft in southerly weather.

Santa Anna Point lies $2\frac{1}{2}$ miles N.E. of Point Peters, and forms the northwest tangent of Santa Anna Inlet.

Sunny Bay is formed by the southeasterly indentation of the mainland $1\frac{1}{2}$ miles S.S.W. of Santa Anna Point, being the south elbow of Seward Passage.

Three coves make south from this bay. The largest and most easterly cove has a small island 200 meters north of point forming

its N.W. tangent.

A rock, awash at L.W., lies 250 meters east of this island, and is in the center of the entrance to the east cove. This cove carries 10 fathoms to 150 meters of its head.

The center cove is wedge-shaped and dries for half of its length.

The west cove trends southeasterly and a reef makes out 150 meters from its head. The water from its N.W. tangent out to the first island is foul.

Santa Anna Inlet opens out of Seward Passage, east of Santa Anna Point, $2\frac{3}{4}$ miles east north east of Point Peters. The inlet runs S.S.E. for $1\frac{2}{3}$ miles with an average width of 400 meters. The water is clear with an average depth of about 20 fathoms, shoaling gradually from 70 fathoms at entrance to 10 fathoms opposite the cannery dock. Shore is steep and wooded. A shoal spot of 12 fathoms was found a little to the east side of entrance.

Santa Anna Cannery has not been in operation for several years, but there is a good dock with a least depth of 20 feet at its outer face. A shoal lies north of the dock, extending off shore for 150 meters and an 8-foot sounding was obtained outside, west of the line joining north corner of dock and the whitewashed shack on the east side of the head of the inlet. Fresh water may be had from dock. Santa Anna Inlet furnishes ideal shelter, and it is claimed that no wind ever disturbs the head of the bay. The water is shoal for 150 meters off the head of the inlet and a fresh water stream makes in from Lake Helen, lying $\frac{1}{4}$ mile to the south.

Frosty Bay makes S.E. into the mainland from the east side of Seward Passage, $2\frac{1}{2}$ miles S.E. of the north point of Deer Island and 4 miles north of Santa Anna Point. The bay is about $\frac{1}{4}$ mile wide and $\frac{5}{6}$ mile long. A reef makes N.W. 165 meters from the south point of bay. Two rocks, the outer baring 15' at L.W., lie approximately 120 meters north of the inner or more prominent point on south side of bay. The inner of these rocks is awash at H.W. Excepting these the water seems clear. There are a group of houses on the S.W. shore about $\frac{1}{3}$ mile S.E. of entrance, and just south of these the bay narrows to a width of 100 meters and then widens to the S.E. again. Frosty Bay dries well down to this narrows. Fishing craft anchor in 6 fathoms off the houses. This bay is much used by fishermen. A large stream makes in at its head, and extensive logging operation have left their mark on the N.E. shores and an old skidroad makes down to the water from the east.

The east shore along mainland from Frosty Bay to Point Warde is clear and deep at 50 meters off shore.

A deep wedge-shaped cove makes into the N.E. end of Deer Island, $\frac{1}{2}$ mile south of the north point of the island. This cove is 300 meters wide at its entrance and runs south $\frac{1}{2}$ mile with 5 fathoms 250 meters from its head. It is too narrow and deep for anchorage. A small island lies on the east side of the entrance.

The west shore of Seward Passage along the east side of Deer Island is deep and clear at 100 meters off shore.

A shoal sounding of 28 feet was found 400 meters north of the north end of Deer Island. This was inside of the wire drag area as plotted on our sheets.

The southwest shore of Deer Island is fringed with a series of Bays and Islands.

A long Bay is formed by two oblong islands lying $\frac{1}{2}$ mile off the S.E. shore of Deer Island. This Bay opens north $\frac{1}{4}$ mile N.W. of Point Peters. From the east side opposite the south end of the first island a series of rocks, baring $\frac{1}{2}$ tide make out for 240 meters.

A Cove with small boat shelter lies on east shore, $\frac{2}{3}$ mile north of Point Peters, and opposite 2nd rock islet.

A channel with 4 fathoms separates the 2 islands forming west side of bay, but a nest of rocks baring only at low water foul the entrance to this channel. The most southerly and easterly of these rocks lies 220 meters east of the first islet on the west side of bay.

A safe passage for small craft is around the north end of 2nd island pass to west of small islet and keep mid-channel. A reef makes 170 meters N.N.W. of the north end of this 2nd island.

A second Bay opens 1 mile above the first and 2 miles north of Point Peters. It is formed by an indentation in the S.E. shore of Deer Island and the S.E. shore of a long slim island which is separated from Deer Island by a narrow passage. This bay is $\frac{1}{2}$ mile wide and 1 mile long, running northerly. It is too deep and exposed to furnish anchorage.

A group of rocks lie 200 meters off the west shore, 350 meters N.E. from the south point of the long island.

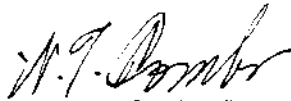
Several islands with deep water between them lie off the S.W. shores of this long island. West of this island the passages ~~the~~ and lagoons are foul.

The narrow channel separating this long slim island from Deer Island dries at a restricting point about midway of the slim island and a rock lies in midchannel 540 meters above this point. (The "Delta" ran this passage at mid-tide)

The wire drag ran close in to N.W. shore of Deer Island, but generally speaking, craft without local knowledge should keep 200 meters off the west shore of Deer Island and those islands immediately to the west of it. The bays and channels on the S.W. should be run with extreme caution and it is best to have local knowledge.

The general current in Seward Passage runs south on flooding tide.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "W. T. Combs, Jr.", written in a cursive style.

W. T. COMBS, Jr. H. & G. E.,
Hydrographer.

STATISTICS SHEET No. _____

Date, 1922		letter	Vol- ume	Posi- tions	Sound- ings	Miles Statute	Vessels
July	27	a	1	74	203	17.0	Lch. Delta
	28	b	1	82	204	17.5	" "
	29	c	1	31	88	8.2	" "
August	1	d	1	73	161	21.0	" "
	9	e	2	69	126	14.0	" "
	12	f	2	41	81	9.3	" "
	14	g	2	74	170	22.5	" "
	15	h	2	73	123	14.0	" "
	16	i	2 & 3	77	160	17.5	" "
	17	k	3	74	180	19.0	" "
	19	m	3	65	187	11.4	" "
	21	n	3	20	55	3.0	" "
	22	p	3 & 4	120	282	21.4	" "
	23	q	4	114	266	20.0	" "
	25	r	4	59	108	17.0	" "
October	12	a	1	100	195	13.0	Gas Lch. WDF #2
	13	b	1	64	86	12.5	" " " "
	12	a	1	84	218	17.0	Lch. Delta
	13	b	1	121	276	21.3	" "
	18	c	1	48	141	5.7	" "
September	29	A	1	41	41	12.0	Str. Wenonah
October	6	B	1	43	43	9.7	" "
	9	C	1	22	22	5.0	" "
Totals				1569	3416	329.0	

t.e.c

COPY TO FIELD RECORDS.

May 17, 1923.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 4272

Locality: Ernest Sound, Alaska

Chief of Party: A. M. Schierowski in 1922.

Plane of reference is mean lower low water, reading
5.0 ft. on tide staff at Santa Anna Inlet
5.1 " " auto-gauge " Mamet Inlet.

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

Hyd. Sheet No. 4272

Within the limits of the work the ground is uniformly covered.

On the greater part of the work very few bottom characteristics are noted and no courses are given except on the ship work.

A great many positions were found to have been incorrectly protracted.

The position numbers for the ship work were not oriented properly.

Signals in the same locality should not be given names which sound nearly alike, such as Kut, Kot, Kit, Ket and Kat.

R. L. Johnston

Some confusion was undoubtedly caused by the fact that the signals were too numerous.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

November 21, 1923.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4272

Ernest Sound, Alaska

Surveyed in 1922

Instructions dated February 18, 1922

Chief of Party, A. M. Sobieralski

Surveyed by A. M. Sobieralski and W. T. Combs

Protracted by A. M. Hoskinson

Soundings plotted by F. M. Albert

Verified and inked by R. L. Johnston.

1. The records conform to the requirements of the General Instructions, except that boat's courses were omitted, and also but few bottom characteristics were given, although these were specifically called for in the instructions. The few bottoms noted are not at the tops of the pages, as is called for in Paragraph 300 of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. Only the protracting was done in the field. Many of the positions were found to be incorrectly plotted. The position numbers of the ship's work was oriented upside down.

7. There is an excessive number of signals on this sheet - in one locality averaging 150 meters apart for a distance of two miles. As might have been anticipated, there were errors in signals in observing, and some of the mistakes in plotting were due to confusion of signals. Also there are several series of names of consecutive signals such as Kat, Ket, Kit, Kot and Kut. This is certain to result in errors in recording.
8. The junctions with adjoining sheets are satisfactory.
9. The name Santa Anna Pt. is applied by the descriptive report of this sheet and by the Alaska Dictionary to the point at the entrance to Santa Anna Inlet. The name Dark Pt. has recently been applied to this point, the authority being reports from Alaska pilots.
10. No further surveying is required within the area of this sheet. This area has not been wire-dragged, and it contains several spots that can only be cleared up with the drag.
11. Except for the defects noted in paragraphs 1 and 7 the survey is an excellent one. The field drafting was poor.
12. Reviewed by E. P. Ellis, November, 1923.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. E 4272

State . . . S. E. Alaska

General locality . . . Ernest Sound

Locality . . . Eaton Pt. to Deer I.
Seward Passage and Approaches.

Chief of party . . . A. M. Sobieralski, H. & G. E.

Surveyed by . . . W. T. Combs, Jr. H. & G. E.

Date of survey . . . 1922

Scale 1 : 20,000

Soundings in . . . Fathoms

Plane of reference . . . M. L. L. W.

Protracted by A. J. H. Soundings in pencil by Not plotted

Inked by Verified by

Records accompanying sheet (check those forwarded):

Das report, _____ Tide books, _____ Marigrams, 3 Boat sheets,

7 Sounding books, _____ Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks: Tide reducers from Santa Anna Tide Gauge for work in Seward Passage and Santa Anna Inlet. Plane of reference, 5.0 feet on gauge.

Lowest tide observed, Aug. 24, 1922 1.5 " " "

Highest " " Aug. 24 and 25, 24.6 " " "

For remainder of work, tide reducers from Menefee Inlet Tide gauge.

Plane of reference 5.1 feet on gauge

Lowest tide observed, Aug 24, 1.5 " " "

Highest tide observed, Sept. 23 26.6 " " "